

Unit: Oxidation and Reduction	
IB Expectations/ Assessment Criteria	
Approach	Significant concept(s) / Considerations
Interactive	oxidation is loss of electron and reduction is gain of electron or in other words oxidation number but in reduction it decreases.
Guiding Questions	Learner Profile
Can oxidation reduction happen together or separately, if so how can it be detected Can oxidation and reduction happen together, if yes, what are the indicators of that. Where can I apply my knowleged of oxidation and reduction in regular life.	<ul style="list-style-type: none"> ▪ Inquirers ▪ Knowledgeable ▪ Thinkers ▪ Risk-takers ▪ Reflective
Central Idea / Content	Learning Objectives
9.1 Introduction to oxidation and reduction 9.2 Redox equations 9.3 Reactivity 9.4 Voltaic cells 9.5 Electrolytic cells 19.1 Standard electrode potentials 19.2 Electrolysis	Students learnt oxidation and reduction in terms of electron loss or gain and change in oxidation number. Practical application of oxidation and reduction in such as purification or extraction of metals is explained with reference to reaction feasibility of a given reaction.
<u>Assessment</u>	
Other Written Assessment	

Errors and uncertainties		
Other Written Assessment		
Worksheet		
Other Written Assessment		
Study of Redox reactions		
Other Written Assessment		
DCP		
Other Written Assessment		
Assignment		
Other Written Assessment		
The Oxidation States of Vanadium, Manganese DCP,CE		
Examination		
Test		
Other Written Assessment		
Electrochemical cells – 1& 2		
D		
Information Literacy & ICT	International Mindedness	TOK
1. Virtual simulation of the electrolysis of copper (II) sulphate is discussed.	Oxidation number is an universal term, which replaces the older definitions like valance, etc.	Are oxidation Chemistry ha

		resulted in ol been gained a
Strategies / Activities / Differentiation		Resources
This topic is taught with lots of hands on activity and virtual activity. Every lesson is backed up by on the class work which enforced learning. The students who has problem in understanding the basic chemistry behind it were given easier problems for confidence building and then moved to normal main stream set of works		<ol style="list-style-type: none"> 1. IB chemistry-Geoff Neuss 2. Chemistry text book-Catrin Brown 3. PowerPoint presentations as teaching aid (on core and advanced 4. Web resources (teacher tube etc) 5. Worksheet on <ol style="list-style-type: none"> a. Ionic equations b. Oxidation number c. Half equations d. Oxidizing and reducing agents Reactivity series
Unit Reflections		